

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) Pulse modulation circuitry comprising:

a branching ~~mean~~ means for receiving a pulsed signal from a pulse applying terminal and also receiving a local oscillation signal from a local oscillation wave input terminal, and for outputting a pulsed signal having a frequency even times ~~the~~ a frequency of the local oscillation signal to a pulse output terminal;

a mixing means for mixing the pulsed signal delivered thereto by said branching means and the local oscillation signal, and for furnishing a pulsed signal having a frequency even times the frequency of the local oscillation signal to said branching means; and

a voltage dividing means for dividing a voltage applied to said mixing means.

2. (Cancelled)

3. (Currently Amended) The pulse modulation circuit according to Claim 225, ~~characterized in that the~~ wherein said resistor ~~which constitutes the~~ comprising said voltage dividing means is a variable resistor.

4. (Cancelled).

5. (Currently Amended) The pulse modulation circuitry ~~according to~~ Claim 1, ~~characterized in that the~~ wherein a resistor is disposed between the pulse applying terminal and a ground.

6. (Cancelled)

7. (Currently Amended) The pulse modulation circuitry ~~according to~~ Claim 1, ~~characterized in that the~~ said voltage dividing means ~~which consists of~~ comprising a parallel

circuit in which a series circuit including a resistor and a diode ~~and a capacitor are~~ is connected in parallel with a capacitor, wherein said circuit is disposed between the mixing means and a ground or between the branching means and said mixing means.

8. (Currently Amended) Pulse modulation circuitry comprising:

a-branching ~~mean-means~~ for receiving a pulsed signal from a pulse applying terminal, and for outputting a pulsed signal having a frequency even times a frequency of a local oscillation signal to a pulse output terminal;

a mixing means for mixing the pulsed signal delivered thereto by said branching means and the local oscillation signal delivered thereto from a local oscillation wave input terminal, and for furnishing a pulsed signal having a frequency even times the frequency of the local oscillation signal to said branching means; and

a voltage dividing means for dividing a voltage applied to said mixing means.

9. (Cancelled)

10. (Currently Amended) The pulse modulation circuit ~~according to~~ Claim 9, ~~characterized in that the~~ wherein said resistor ~~which constitutes the~~ comprising said voltage dividing means is a variable resistor.

11. (Cancelled)

12 (Currently Amended) The pulse modulation circuit ~~according to~~ Claim 8, ~~characterized in that~~ wherein a resistor is disposed between the pulse applying terminal and a ground.

13. (Cancelled)

14. (Currently Amended) The pulse modulation circuitry ~~according to~~ Claim 8, ~~characterized in that the said voltage dividing means which consists of comprising~~ a parallel circuit in which a series circuit including a resistor and a diode ~~and a capacitor are~~ is connected in parallel with a capacitor, wherein said circuit is disposed between the mixing means and the local oscillation wave input terminal or between the branching means and said mixing means.

15. (New) The pulse modulation circuitry of claim 1, said mixing means further comprising an anti-parallel diode pair including two diodes connected in parallel and opposite in direction to each-other.

16. (New) The pulse modulation circuitry of claim 8, said mixing means further comprising an anti-parallel diode pair including two diodes connected in parallel and opposite in direction to each-other.

17. (New) The pulse modulation circuitry of claim 1, said branching means for outputting a pulsed signal having a frequency even times a frequency of the local oscillation signal to a pulse output terminal comprising:

a band-pass filter that receives the output of said mixing means and permits only the pulsed signal having a frequency even times a frequency of the local oscillation signal to pass therethrough and be outputted to the pulse output terminal.

18. (New) The pulse modulation circuitry of claim 8, said branching means for outputting a pulsed signal having a frequency even times a frequency of the local oscillation signal to a pulse output terminal comprising:

a band-pass filter that receives the output of said mixing means and permits only the pulsed signal having a frequency even times a frequency of the local oscillation signal to pass therethrough and be outputted to the pulse output terminal.

19. (New) The pulse modulation circuitry of claim 15 wherein a second harmonic outputted from the first of said two diodes is in opposite phase with a second harmonic outputted from the second of said two diodes.

20. (New) The pulse modulation circuitry of claim 16 wherein a second harmonic outputted from the first of said two diodes is in opposite phase with a second harmonic outputted from the second of said two diodes.

21. (New) The pulse modulation circuitry of claim 1, said voltage dividing means comprising a parallel circuit comprising a resistor and a capacitor, which is disposed between the mixing means and a ground, or between the branching means and said mixing means.

22. (New) The pulse modulation circuitry of claim 8, said voltage dividing means comprising a parallel circuit comprising a resistor and a capacitor, which is disposed between the mixing means and the local oscillation wave input terminal, or between the branching means and said mixing means.

23. (New) The pulse modulation circuitry of claim 1, said circuitry further comprising a one-quarter wavelength short-ended stub connected to said mixing means such that said local oscillation signal is input into said circuitry from said local oscillation wave input terminal via a connecting point between said mixer and said stub.

24. (New) The pulse modulation circuitry of claim 8, said circuitry further comprising a one-quarter wavelength short-ended stub connected to said mixing means such that said local oscillation signal is input into said circuitry from said local oscillation wave input terminal via a connecting point between said mixer and said stub.

25. (New) The pulse modulation circuitry of Claim 1, said voltage dividing means comprising a resistor disposed between the pulse applying terminal and the branching means.

26. (New) The pulse modulation circuitry of Claim 8, said voltage dividing means comprising a resistor disposed between the pulse applying terminal and the branching means.

27. (New) The pulse modulation circuitry of claim 25, said voltage dividing means further comprising a serial circuit comprising said resistor and a diode, wherein said circuit is disposed between the pulse applying terminal and the branching means.

28. (New) The pulse modulation circuitry of claim 26, said voltage dividing means further comprising serial circuit comprising said resistor and a diode, wherein said circuit is disposed between the pulse applying terminal and the branching means